



Detailed Agenda

Wednesday

October 28, 2015

7:30 – Registration open all day

8:00 – 9:00 a.m. **BEACH 101 - SHANNON BRIGGS AND HOLLY WIRICK**

This is a “big picture” overview of monitoring beaches. Training includes developing a sampling plan, options for lab testing, communicating results to the public, why sanitary surveys are important and how they improve beaches, using Virtual Beach to forecast water quality, identifying sources of contamination, and initiating remediation projects.

8:00 a.m. – noon **COASTAL STORMS PROGRAM - BEACH SAFETY/DANGEROUS NEARSHORE CURRENTS**

The 2015 Dangerous Currents - Coastal Storms Project Great Lakes Regional Meeting will include a short review of project goals and accomplishments, progress with state working groups, status of the safety and rescue equipment distribution, discussion of the “Be Current Smart” outreach campaign, and regional updates. The bulk of the meeting will be the discussion of the Water Safety Program Sustainability Plan.

Attendance: Members Only

Contact: Clarence Fullard (cfullard@umich.edu)

9:00 – 10:00 a.m. **SANITARY SURVEYS - KIM BUSSE AND GREG KLEINHEINZ**

Are you frustrated reporting “unknown sources” as the reason for a beach closure? Beach managers will explain how to use a one page sanitary survey with routine monitoring data to identify sources of pollution. Sanitary surveys lead to corrective actions, successful remediation projects, and serve as stepping stones to build forecast models with Virtual Beach.

9:00 a.m. – 4:00 p.m. **MICHIGAN DUNE ALLIANCE FALL 2015 MEETING**

Meeting Description: The Fall 2015 meeting of the Michigan Dune Alliance will be an opportunity for MDA partners to provide updates and outcomes from 2015 activities, plan for our 2016 activities, and give input on organizational structure and function. We will also take time to discuss the future of the organization, including increasing our breadth, depth, and visibility.

Attendance: 9-3pm (members only) and 3-4pm (open to public, new members welcome)

Contact: Kaldis Grants, Coastal Restoration Coordinator (TNC) (kaldis.grants@tnc.org) or visit www.nature.org/dunes

10:00 a.m. – noon **QPCR SHOP TALK - ERIN DREELIN AND TIONG GIM AW**

The qPCR shop talk will be an open discussion for qPCR users to discuss what methods work and don't work. All levels of experience are welcome to join and to share experiences, issues, and successes with qPCR. We can discuss topics from choosing a mastermix to workflow tips and tricks.

Noon – 1:00 p.m. **LUNCH**

12:30 – 5:00 p.m. **LAKE MICHIGAN MONITORING COORDINATION COUNCIL MEETING**

The Lake Michigan Monitoring Coordination Council (LMMCC) was formed in 1999 to support monitoring efforts in the Lake Michigan basin as they relate to the needs of the Lake Michigan Lakewide Action and Management Plan (LAMP). This meeting will help strengthen relationships among participants involved in Lake Michigan monitoring basin-wide and further the goals, objectives and partner roles as they relate to the LMMCC's work with the Lake Michigan LAMP Partnership, the Cooperative Science and Monitoring Initiative (CSMI), and monitoring-related annexes of the Great Lakes Water Quality Agreement.

Attendance: Open to the public (new members welcome)

Contact: John Hummer (jhummer@glc.org), Lisa Fogarty (lrfogart@usgs.gov)

1:00 – 5:00 p.m.

Field Tours

Boardman River Restoration & Dam Removal

Tour Leader: Steve Largent, Grand Traverse Conservation District

The former site of Brown Bridge Dam is the first stop after leaving Grand Traverse Resort. Brown Bridge Dam was removed in the fall of 2012 and is the first of three dams on the Boardman River scheduled for removal as part of the largest dam removal effort in Michigan's history. Participants will hear about removal and subsequent efforts and see up close the 2.8 miles of new/relic river channel that formed after the dam was removed. The tour will then continue to Boardman Dam slated for removal in 2017. The tour will also include a stop at the Boardman River Nature Center before heading back to the Resort. To learn more, visit www.theboardman.org

Kids Creek Restoration Project Tour, Munson Medical Center (downtown Traverse City)

Tour Leader: Sarah U'Ren, The Watershed Center Grand Traverse Bay

Participants will see a variety of stream restoration and green infrastructure techniques being used to restore Kids Creek, an impaired stream in the Grand Traverse Bay Watershed. The tour begins where approximately 900 feet of creek previously contained in underground culverts was daylighted in 2013 and 72,000 square-feet of impervious surfaces was eliminated to create a new 1,200 foot meandering stream channel complete with almost 40,000 square-feet of new floodplain. From there we'll see the low impact development techniques to reduce stormwater inputs to Kids Creek at Munson's new \$45 million Cowell Family Cancer Center. A highlight of the tour will be a peek at the newly installed green roof at the Cancer Center, visible from the chemotherapy wing of the Center. From there we will tour Munson's campus, looking at other current and future green infrastructure techniques being installed to reduce stormwater impacts to Kids Creek, including underground infiltration trenches, rain gardens, pervious pavement, riparian buffers and more. Project funding so far totals over \$3.4 million from Federal and State grants, as well as local match and private funding.

Platte River State Fish Hatchery Tour, Beulah, Michigan

Tour Leader: Aaron Switzer, Fisheries Biologist, Michigan Department of Natural Resources

Join us for a one-of-a-kind tour of the Platte River State Fish Hatchery, which raises coho and chinook salmon and is the main egg take station for coho salmon in all of the Upper Great Lakes. Your tour will begin at the Visitor's Center at the hatchery where you will receive a brief history of why we have salmon in the Great Lakes. The hatchery tour will be guided by a fisheries biologist. You'll explore the life history of Pacific salmon and the life cycle in the hatchery. You will get to see live fish and experience what life is like at the hatchery. The adult feral brood stock will be in the river and many will be in the spawning facility where you will have the chance to participate in a mock egg take. If you ever wanted to get an up-close experience with a salmon or just see the birthplace of Michigan's world class sport fishing industry, this is your chance.

ROV Demonstration at Northwestern Michigan College, - Great Lakes Water Studies Institute
Tour Leaders: Hans VanSumeren, Director, NMC Great Lakes Water Studies Institute, and John Lutchko, NMC Marine Technology Laboratory Coordinator

This field trip will feature hands on training and operation of NMC's fleet of Remotely Operated Vehicles (ROV). ROV's are used widely across the globe for subsea work in support of science and industry. NMC is home to the nation's first Bachelor's of Science in Marine Technology, first Freshwater Studies degree and numerous other water based training and education programs. The ROV is used throughout these programs and is critical to performing detailed work beneath the surface of the lake when depths, environmental considerations and duration prohibit diver intervention. Several types of ROV technology will be presented including a SAAB Seaeye Falcon, Outland 1000 and OpenROV platforms. Participants will gain first-hand experience operating the vehicles along with a basic understanding of the system operation and example missions. All operations will occur in NMC's newly constructed, 70,000 gallon indoor Marine Technology Laboratory.

1:00 – 2:00 p.m.

GREAT LAKES BEACH ASSOCIATION BOARD MEETING

This is a meeting for elected members of the Great Lakes Beach Association. Others are invited to listen in and provide comment.

2:00 – 3:00 p.m.

QPCR DATA CRUNCHING WITH U.S. EPA TRAINING – RICK HAUGLAND AND TAMI SIVY

Having issues with your standard curve or calculating results when running qPCR? Dr. Rich Haugland will provide training and guide you through the calculations. We will have an open discussion for all your questions, comments, and helpful tips. Please visit the web U.S. EPA Web page to see the calculation spreadsheet before the meeting:
<http://water.epa.gov/scitech/methods/cwa/bioindicators/index.cfm>

3:00-5:00 p.m.

CLADOPHORA/HABS CONVERSATION - MURULEE BYAPPANAHALLI AND MEREDITH NEVERS

The U.S. Geological Survey will host a discussion of the nuisance Cladophora problem in the Great Lakes with links to harmful algal blooms. The Cladophora problem continues to influence the nearshore areas of the lakes and their closely associated ecosystem such as beach sand. Join us to discuss what we have learned and how best to join forces to understand and mitigate this problem. Potential discussion topics include (a) distribution and causes, (b) eutrophication, HABs, and affected biological communities (e.g., microbes, macroinvertebrates, fish), (c) modeling Cladophora distribution and movement, (d) effects on human and wildlife health (water quality, bird botulism), and (e) managing Cladophora problems. Individuals from science, management, and policy are all encouraged to participate in this discussion.

5:00 to 6:30 p.m.

COLLABORATION AROUND THE BASIN: LAKE MICHIGAN OUTREACH & EDUCATION

Communities throughout the Lake Michigan basin fall in four states, 40 coastal counties, and thousands of cities, municipalities, and villages. Although a coordinated management approach for Lake Michigan is often encouraged, facilitating a common dialogue across communities can be challenging. Several organizations – the Lake Michigan Forum, the Lake Michigan Watershed Academy, and Lake Michigan Stakeholders – do just that. These groups connect natural resource professionals, community planners, elected officials, and the broader public on critical Lake Michigan issues. This joint meeting will be an opportunity to learn about the activities of these groups and the future of funding for cross-basin outreach and education. Join this conversation as a participant and find out how you can plug in from your community. A meeting agenda will be posted on the LMS website. Following the presentations and Q&A, head to the Conference Meet & Greet Evening Reception to socialize with group members and other attendees and broaden your network.

Attendance: Open to the public (new members welcome)

Contact: Todd Verboomen (TVerboomen@ecwrpc.org)

Dinner on own

6:00 to 9:00 p.m.

MEET & GREET RECEPTION | Exhibit/Poster Space

Thursday

October 29, 2015

[View speaker biographies, abstracts, and full authorships.](#)

- 7:30 – 9:00 a.m. **Continental Breakfast** (Registration open all day)
- 9:00 – 9:15 a.m. **Opening Remarks**, Shannon Briggs, Department of Environmental Quality, Water Resources Division, and Matt Preisser, Michigan Office of the Great Lakes
- 9:00 – 9:15 a.m. **Welcome**, Jon W. Allan, Director, Michigan Office of the Great Lakes
- 9:30 – 9:45 a.m. **Keynote Speaker**, John Wathen, Senior Scientist, Fish and Beach Programs, Standards and Health Protection Division of the Office of Science and Technology, U.S. Environmental Protection Agency, Office of Water
- 9:45 – 10:00 a.m. **Special Acknowledgement – Judy Beck**, Vicky Harris, Wisconsin Marine Association, and Janet Vail, Grand Valley State University
- 10:00 – 10:30 a.m. **BREAK** | Exhibitor Space
- 10:30 a.m. – noon
Beach Track **BEACH CONTAMINATION ISSUES IN THE GREAT LAKES – Moderators: Greg Kleinheinz, University of Wisconsin-Oshkosh, and Donalea Dinsmore, Wisconsin Department of Natural Resources**
Abundance and environmental drivers of anthropogenic litter on 5 Lake Michigan beaches
Jamie Cross, Adopt-a-Beach Manager, Alliance for the Great Lakes
Methods to sample E. coli in foreshore sand and pore water
Laura Vogel, PhD Candidate, University of Western Ontario
QPCR: A rapid method to monitor water quality at a National Park
Dawn Shively, U.S. Geological Survey
Quantitative Microbial Risk Assessment for Recreational Waters at Three Lake Michigan Beaches
Tucker R. Burch, Research Hydrologist, U.S. Geological Survey, Wisconsin Water Science Center
- 10:30 a.m. – noon
Lake Michigan Track I **MONITORING TO SUPPORT DECISION-MAKING, PART I: REMOTE SENSING AND OTHER TECHNOLOGIES - Moderator: Lisa Fogarty, Chief, Hydrologic Studies Section, U.S. Geological Survey, Water Science Center**
A decade of nearshore ecosystem change: observations from Sleeping Bear Dunes
Brenda Moraska Lafrancois, Midwest Region Aquatic Ecologist, National Park Service
Remote Sensing for Great Lakes Mapping and Monitoring
Colin Brooks, Senior Research Scientist, Michigan Technological University – Michigan Tech Research Institute
Long-Term Trends in Nearshore Chlorophyll Concentrations throughout Lake Michigan
Margaret Hutton, Purdue University
Monitoring Spatial-Temporal Variations of Fox River Plume using MODIS Remote Sensing Imagery
Sajad Ahmad Hamidi, University of Wisconsin - Milwaukee
Discussion/Take-away

10:30 a.m. – noon Lake Michigan Track II	<p>LAKE MICHIGAN IMPORTANT SPECIES & HABITATS - Moderator: Amy McGovern, Liaison to the U.S. EPA Great Lakes National Program Office, U.S. Fish and Wildlife Service</p> <p>The Michigan Dune Alliance: Collaborating to Restore Eastern Lake Michigan Coastal Ecosystems <i>Shaun Howard, Eastern Lake Michigan Project Manager, The Nature Conservancy</i></p> <p>Great Lakes Piping Plover - Status of the Population and Recovery Effort <i>Vincent Cavalieri, Wildlife Biologist, U.S. Fish and Wildlife Service</i></p> <p>Amphibians and Reptiles of the Lake Michigan Basin: Status and Conservation <i>David Mifsud, Herpetologist, Herpetological Resource and Management</i></p> <p>Lake Sturgeon Passage on the Menominee River - a Habitat-Based Partnership <i>Robert F. Elliott, U.S. Fish and Wildlife Service, Green Bay Fish and Wildlife Conservation Office</i></p> <p>Discussion/Take-away</p>
10:30 a.m. – noon Lake Michigan Track III	<p>COASTAL PLANNING & SUSTAINABLE DEVELOPMENT - Moderator: Mark Breederland, Extension Educator, Michigan Sea Grant</p> <p>Coastal Land Cover Change and Analysis in Great Lakes <i>John McCombs, Senior Remote Sensing Specialist, The Baldwin Group at National Oceanic and Atmospheric Administration Office for Coastal Management</i></p> <p>Sustainable Small Harbor Management – Building a Strategy <i>Amy Samples, Coastal Resilience Specialist, Michigan Sea Grant</i></p> <p>Indiana’s Clean Marina Program: Implementation and Collaboration <i>Ashley Snyder, RAP and LAMP Program Coordinator, Indiana Department of Environmental Management</i></p> <p>Incorporating Green Infrastructure into Local Decision Making in Michigan City, Indiana <i>Bill Schleizer, Managing Director, Delta Institute</i></p> <p>Discussion/Take-away</p>
noon – 1:30 p.m.	<p>LUNCH - Guest speakers: Mary Catterlin and Amy Lukas, “Lake Michigan in a Dugout Canoe”</p>
1:30 – 3:00 p.m. Beach Track	<p>PATHOGENS AND HARMFUL ALGAL BLOOMS: NEW METHODS TO MONITOR, MODEL AND MITIGATE HEALTH AND ECONOMIC IMPACTS – Moderator: Sue Watson, Environmental Canada</p> <p>Emerging and Climate-Sensitive Pathogens in Ambient Water Settings <i>Michael J. Beach, Associate Director for Health Water, Centers for Disease Control and Prevention (CDCP)</i></p> <p>One Health Surveillance of Harmful Algal Bloom-related Illnesses – A Reporting System Pilot <i>Virginia A. Roberts, MSPH, Epidemiologist, Great Lakes Project Coordinator, CDCP</i></p> <p>Beach Bloom Risk Management: Development and Implementation of On-Site Response Tools <i>Dr. Sue Watson, Watershed Hydrology and Ecology Research Division, Environment Canada</i></p> <p>Factors related to microcystin concentrations at Ohio recreational lakes <i>Donna Francy, Hydrologist, U.S. Geological Survey</i></p> <p>Valuing the impact of harmful algal blooms on Lake Erie beaches <i>Frank Lupi, Professor of Agricultural, Food, & Resource Economics and Fisheries & Wildlife, Michigan State University</i></p>

1:30 – 3:00 p.m. Lake Michigan Track I	<p>MONITORING TO SUPPORT DECISION-MAKING, PART II: LAKE MICHIGAN MONITORING PROGRAMS - Moderator: <i>Lisa Fogarty, U.S. Geological Survey</i></p> <p>U.S. Geological Survey Nutrient Monitoring in Major Tributaries to the Great Lakes <i>Jon Hortness, Chief, Northern Illinois Field Office, U.S. Geological Survey</i></p> <p>Cooperative Science and Monitoring Initiative <i>Paul J. Horvatin, Chief, Monitoring Indicators and Reporting Branch, U.S. Environmental Protection Agency – Great Lakes National Program Office</i></p> <p>What does the 2015 Lake Michigan Monitoring Inventory tell us? <i>John Hummer, Project Manager/Contractor, Great Lakes Commission</i></p> <p>Panel Discussion – 30 min (TBD)</p>
1:30-3:00 Lake Michigan Track II	<p>CONNECTIVITY OF GREAT LAKES RIVERS: WHY IT MATTERS, WHERE TO WORK, AND HOW TO ACCOMPLISH RESTORATION - Moderator: <i>Mary Khoury, The Nature Conservancy</i></p> <p>Characterizing Great Lakes Migratory Fish Species: Basin-wide Patterns and New Discoveries <i>Dr. Solomon David, Postdoctoral Research Associate, Shedd Aquarium</i></p> <p>Targeting Barrier Removal to Benefit Migratory Fish Species in the Great Lakes <i>Mary Khoury, Aquatic Ecologist and Conservation Planner, The Nature Conservancy</i></p> <p>Mapping watershed infrastructure vulnerability in the western Upper Peninsula of Michigan <i>Mark Fedora, Supervisory Hydrologist, Ottawa National Forest</i></p> <p>View from the Field - Connecting Streams in Northern Michigan <i>Amy Beyer, Director, Conservation Resource Alliance</i></p> <p>Discussion/Take-away</p>
1:30 – 3:00 p.m. Lake Michigan Track III	<p>LAKE MICHIGAN BOUILLABAISSE - Moderator: <i>TBD</i></p> <p>Managing Historic Shipwrecks in Lake Michigan with Mobile Sonar and 3D Modeling <i>Christopher S. Hartzell, Collins Engineers, Inc.</i></p> <p>Dangerous Great Lakes Nearshore Waves and Currents: Field and Satellite Observations <i>Guy A. Meadows, Director, Great Lakes Research Center, Michigan Technological University</i></p> <p>Status of Information/Issues Regarding Commercial Net Pen Aquaculture in the Great Lakes <i>Tammy Newcomb, Senior Water Policy Advisor, and Ed Eisch, Statewide Fish Production Manager, Michigan Department of Natural Resources</i></p> <p>Great Lakes, Dark Skies: Effects of Artificial Light in Coastal Areas <i>Mary Stewart Adams, Program Director, Headlands International Dark Sky Park</i></p> <p>Discussion/Take-away</p>
3:00 – 3:30 p.m.	<p>BREAK Exhibitor/Poster Space</p>
3:30 – 5:00 p.m. Beach Track	<p>MODELING AND MAPPING - Moderator: <i>Kim Busse, University of Wisconsin - Oshkosh</i></p> <p>Mapping Submerged Aquatic Vegetation in the Great Lakes Using Satellite Imagery <i>Colin Brooks, Sr. Research Scientist, Michigan Technological University – Michigan Tech Research Institute</i></p> <p>Hemispheric ENSO Cycling and Lake Michigan Coastal Dune Evolution: A Relationship? <i>Dr. Alan F. Arbogast, Chairperson, Department of Geography, Michigan State University</i></p> <p>Six Key Steps for Developing and Using Predictive Tools at Your Beach <i>Samantha Fontenelle and Dr. Joanna Mott, U.S. Environmental Protection Agency</i></p> <p>Implementing Predictive Models: Practical Advice and New Tools <i>Adam Mednick, Wisconsin Sea Grant</i></p>

3:30 – 5:00 p.m. Lake Michigan Track I	<p>LAKE MICHIGAN GOVERNANCE & MANAGEMENT - Moderator: <i>Beth Hinchey, Lake Erie and Lake Michigan Manager, U.S. Environmental Protection Agency – Great Lakes National Program Office</i></p> <p>Integrated Watershed Monitoring Programs for the Protection of Northwest Indiana Surface Waters <i>Julie Peller, Associate Professor of Chemistry, Valparaiso University</i></p> <p>Geospatial Framework and Spatially Referenced Decision Tools for Great Lakes Management <i>Catherine Riseng, Assistant Research Scientist, University of Michigan, and Kevin Wehrly, Research Biologist, Michigan Department of Natural Resources, Institute for Fisheries Research</i></p> <p>Great Lakes Blue Accounting: Empowering Decisions to Realize Regional Water Values <i>Steve Cole, Chief Information Officer, Great Lakes Commission</i></p> <p>Diffusion and Transformation of Knowledge about Climate Change through Social Networks in the Great Lakes Region <i>Kenneth A. Frank, Professor of Sociometrics, Measurement and Quantitative Methods and Professor of Fisheries and Wildlife, Michigan State University</i></p> <p>Discussion/Take-away</p>
3:30 – 5:00 p.m. Lake Michigan Track II	<p>BOARDMAN RIVER REBORN - COMMUNITY LESSONS IN DAM REMOVAL - Moderator: <i>Amy Beyer, Director, Conservation Resource Alliance</i></p> <p>Overview <i>Amy Beyer, Director, Conservation Resource Alliance</i></p> <p>Advances in Design and Restoration Techniques Part 1 <i>Troy Naperala, AECOM</i></p> <p>Advances in Design and Restoration Techniques Part 2 <i>Marty Melchior, Regional Director, Inter-Fluve</i></p> <p>Prosperity Planning – A New Look at the Concept of Watershed Planning Beyond Dam removal <i>Becky Ewing, Associate Director, Rotary Charities of Traverse City</i></p> <p>Funder's collaborative at work <i>Kathy Huschke, Executive Director, Oleson Foundation</i></p> <p>Discussion/Take-away</p>
3:30 – 5:00 p.m. Lake Michigan Track III	<p>WATERSHED IMPACTS ON LAKE MICHIGAN AND MANAGEMENT TECHNIQUES - Moderator: <i>John Masterson, Lake Michigan LAMP Coordinator, Wisconsin Department of Natural Resources</i></p> <p>Utilizing Partnerships and Green Infrastructure to Restore Kids Creek <i>Sarah U'Ren, Program Director, The Watershed Center Grand Traverse Bay</i></p> <p>Agricultural Collaboration in the Macatawa Watershed <i>Kelly Goward, Macatawa Watershed Project Manager, Macatawa Area Coordinating Council</i></p> <p>Building a Regional Partnership to Address Septic System Impacts to Lake Michigan <i>David Ortel, Environmental Scientist, Indiana State Department of Health, and Mike Molnar, Director, Lake Michigan Coastal Program, Indiana Department of Natural Resources</i></p> <p>Riparian Inventory: A GIS Approach <i>Sinan Abood, Spatial Analyst-Research Fellow, U.S. Department of Agriculture - Forest Service</i></p> <p>Discussion/Take-away</p>
Dinner on own 6:00 – 9:00 p.m.	<p>Meet & Greet Evening Reception in Tower Level 17 – light hors d'oeuvres and cash bar</p>

Friday

including [The Freshwater Summit](#)
October 30, 2015

7:30 – 9:00 a.m.	Continental Breakfast and Registration
8:00 – 10:00 a.m. Beach Track	EXPLORING WAYS TO REDUCE SWIMMING FATALITIES – Moderator: Eric Wiegert, New York Department of Health Applications from the Great Lakes Current Incident Database: Beach Safety & Forecasts <i>Megan Dodson, Meteorologist, National Oceanic and Atmospheric Administration National Weather Service</i> Reducing drownings using the Haddon Matrix and NYSDOH's epidemiological drowning data <i>Eric Wiegert, MPH, and Francesco Pia, PhD, New York State Department of Health</i> Integrated Nowcast -Forecast Operational System (INFOS) for Rip Current Observation, Prediction, and Warning in Lake Michigan <i>Chin Wu, Professor, University of Wisconsin - Madison</i> Be Current Smart: Targeting Parents and Teens to Improve Water Safety <i>Gene Clark, Coastal Engineering Specialist, Wisconsin Sea Grant Institute; Elizabeth LaPorte, Science Outreach Manager, University of Michigan, Graham Sustainability Institute; Brent Schleck, Coastal Storms Outreach Coordinator, Minnesota Sea Grant</i>
8:30 – 10:00 a.m. Lake Michigan Track I	LAKE MICHIGAN FISH AND FISHERIES: CURRENT ISSUES - Moderator: Dave Clapp, Director, Charlevoix Research Station, Michigan Department of Natural Resources, Fisheries Division Shifts in Age of Great Lakes Lake Trout; an Inter-laboratory Comparison <i>Elizabeth Murphy, MPH, U.S. Environmental Protection Agency</i> Resource Subsidies for Young Fish in Southern Lake Michigan Rivermouths <i>Sarah R. Stein, Department of Forestry and Natural Resources, Purdue University</i> Lake Michigan Steelhead: Where were you hatched? <i>Nicole Watson, Graduate Research Assistant, Central Michigan University</i> Post-stocking survival and spatial spread of lake trout stocked in Lake Michigan <i>Matthew S. Kornis, Fish Biologist/Data Analyst, Great Lakes Fish Tag and Recovery Lab, U.S. Fish and Wildlife Service</i> Discussion/Take-away
10:30 a.m. – noon Lake Michigan Track II	LAKE MICHIGAN ISLANDS - Moderator: Karen Vigmostad, Ecovision Lake Michigan islands: A biodiversity and conservation overview <i>Dave Ewert, Senior Conservation Scientist, The Nature Conservancy</i> Michigan's Emerald Isle: Amphibians and Reptiles of the Beaver Island Archipelago <i>David Misfud, Herpetologist, Herpetological Resource and Management</i> [pending: North and South Manitou/NPS] Collaborative Approach for Management of State Lands on Northern Lake Michigan Islands <i>Pat Lederle, Planning and Adaptation Section Supervisor, Michigan Department of Natural Resources, Wildlife Division</i>

Discussion/Take-away

10:00 – 10:30 a.m.

BREAK

10:30 a.m. – noon

Beach Track

RESTORING RECREATIONAL AND ECOSYSTEM QUALITY TO GREAT LAKE BEACHES – Moderator:
Richard Whitman, U.S. Geological Survey

Sherman Park Beach Restoration: BMP Design, Partnerships, and Planning for the Future
Tonya Lewandowski, Sr. Engineer, Environmental Consulting & Technology

A Coastal City with No Beach: Restoring an Abandoned Beach in Green Bay, Wisconsin
Angela Kowalzek-Adrians, Natural Resource Planner, Bay-Lake Regional Planning Commission

Improving Water Quality for Maumee Bay State Park: Restoring Ecosystems for Health
Pamela Struffolino, Operations and Research Facilitator, University of Toledo

Chrysler Beach Restoration: Stormwater Improvements in an Urban Area
Lauren Hoffman, Landscape Ecologist, Environmental Consulting & Technology

Evaluate immediate and long-term BMP effectiveness of GLRI restoration efforts at urban beach and nearshore sites of Southern and Western Lake Michigan
Richard Whitman, PhD, U.S. Geological Survey Great Lakes Science Center

10:30 a.m. – noon

Lake Michigan Track I

**RESTORING THE HEALTH OF THE GREEN BAY ECOSYSTEM UNDER A CHANGING CLIMATE:
MODELING LAND USE, MANAGEMENT, AND FUTURE OUTCOMES - Moderator:** *Chad Cook, Natural Resource Educator, University of Wisconsin-Extension*

Green Bay hypoxia, eutrophication and climate change – an overview
J. Val Klump, Senior Director and Associate Dean of Research, University of Wisconsin – Milwaukee, School of Freshwater Sciences

Nutrient Export to Green Bay under Various Watershed Management and Climate Scenarios
Kevin Fermanich, Professor, Environmental Science & Geoscience, University of Wisconsin – Green Bay

Contribution of advective heat transport to stratification in Green Bay, Lake Michigan
J. Val Klump, Senior Director and Associate Dean of Research, University of Wisconsin – Milwaukee, School of Freshwater Science

Green Bay Nutrient, Hypoxia, and HABs Model: Development, Application, and Management Implications
Ed Verhamme, Project Engineer, LimnoTech

Green Bay Ecosystem Modeling: Stakeholder Input and Management Analysis Tool Implications
Chad Cook, Natural Resource Educator, University of Wisconsin - Extension

Discussion/Take-away

8:30 – 10:00 a.m.

Lake Michigan Track II

COASTAL RESILIENCY - Moderator: *Ronda Wuycheck, Chief, Coastal Management Program, Michigan Office of the Great Lakes*

Why do Lake Levels Matter?
Elizabeth A. LaPorte, Science Outreach Manager, University of Michigan Graham Sustainability Institute

What makes a Great Lakes Community “Coastal”?
Richard K. Norton, Professor and Chair, Urban and Regional Planning Program, University of Michigan

Building Community Resilience in Coastal Communities
Claire Karner, Community Planner, Land Information Access Association

Climate Data Localization and Resources for Great Lakes Communities
Elizabeth Gibbons, Director, University of Michigan Climate Center and Program Manager, Great Lakes Integrated Science + Assessments

Discussion/Take-away

noon – 1:30 p.m.

LUNCH

1:30 – 3:00 p.m.

BEACH OUTREACH AND DECISION MAKING – Moderator: Sonia Joseph, Great Lakes Environmental Research Lab, National Oceanic and Atmospheric Administration

Beach Track

Evaluating the Notification and Outreach Efforts of the Minnesota Beach Program
Cindy Hakala, Beach Program Coordinator, Minnesota Department of Health

Enhancements to myBeachCast mobile app
Steve Cole, Chief Information Officer, Great Lakes Commission

The Great Lakes Observing System: Serving up data to support beach management in the Great Lakes
Andrea Maguire, Program Coordinator, Great Lakes Observing System (GLOS)

U.S. EPA's Beach Program: Looking forward to 2016
John Wathen, Acting Chief, Fish, Shellfish, Beaches, and Outreach Branch, U.S. Environmental Protection Agency, Office of Water

1:30 – 3:00 p.m.

Lake Michigan Track I

CONTAMINANTS IN LAKE MICHIGAN WATER AND FISH - Moderator: Jennifer Gray, Toxicologist, Michigan Department of Health and Human Services

Lake Michigan Lake Trout PCB Model Forecast Post Audit
Russell G. Kreis, Jr., Station Director and Branch Chief, U.S. Environmental Protection Agency, Office of Research and Development

Contaminant Biotransport by Pacific Salmon to Lake Michigan Tributaries
Brandon Gerig, Doctoral Candidate, Department of Biological Sciences, University of Notre Dame

Chemicals of Emerging Concern: Findings from Monitoring of Tributaries of Lake Michigan
Joseph W. Duris, Water Quality Specialist, U.S. Geological Survey, Michigan-Ohio Water Science Center

Current (2008-12) distribution and body burden of monitored contaminants in Lake Trout and Walleye in the Great Lakes
Elizabeth Murphy, MPH, U.S. Environmental Protection Agency

Discussion/Take-away

1:30 – 3:00 p.m.

Lake Michigan Track II

LITERACY, AWARENESS, AND HERITAGE - Moderator: TBD

A Sustainable Lake Michigan Requires a Sustainable Framework for Literate, Engaged Stakeholders
Judy Beck, League of Women Voters - Lake Michigan Region

Raising Public Awareness of Ecological Issues Through the Love Lake Michigan Campaign
Todd Parker, Senior Manager, Delta Institute

Making Lake Michigan Great: An Onboard Outreach and Education Project
Janet Vail, Research Scientist, Grand Valley University-Annis Water Resources Institute

Michigan's Water Heritage Project: Our Stories about Water
Sarah Reding, Vice President of Conservation Stewardship, Kalamazoo Nature Center

3:00 p.m.

Adjourn

The Freshwater Summit

8:30 – 8:45 a.m.	Welcome – <i>Grand Traverse Band of Ottawa and Chippewa Indians</i>
8:45 – 9:45 a.m.	Great Lakes Evaporation – <i>John Lenters, Senior Scientist, LimnoTech</i>
9:45 – 10:15 a.m.	Great Lakes Coastal Wetlands – <i>Don Uzarski, Director, Central Michigan University (CMU) Biological Station and CMU Institute for Great Lakes Research</i>
10:30 – 11:00 a.m.	Microplastics in the Great Lakes – <i>Sherry Mason, Professor of Chemistry and Environmental Sciences Program Coordinator, The State University of New York - Fredonia</i>
11:00 a.m. – noon	Panel Discussion – <i>Melissa Duhamel, Research Scientist, University of Michigan; Jamie Cross, Adopt-a-Beach Manager, Alliance for the Great Lakes; Jeanie Williams, Lead Scientist and Education Coordinator, Inland Seas Education Association</i>
noon – 1:30 p.m.	LUNCH
1:30 – 2:50 p.m.	Lightning Talks – <i>(10 minutes each)</i> Mark Brederland, Michigan Sea Grant Hans VanSumeran, Great Lakes Water Studies Institute Sarah U'Ren, The Watershed Center Grand Traverse Bay Jeanie Williams, Inland Seas Education Association Dennis McCauley, Great Lakes Environmental Center Rachael Franks Taylor, National Oceanic and Atmospheric Administration Steve Largent, Grand Traverse Conservation District
2:50 p.m.	Adjourn